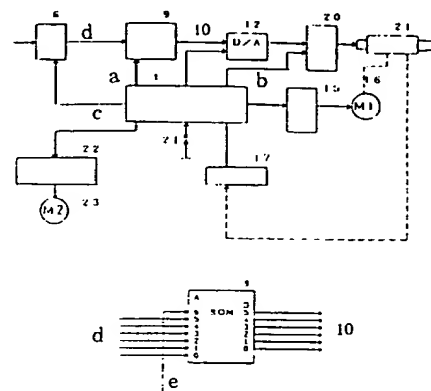


**(54) INK JET RECORDER**

(11) 63-188055 (A) (43) 3.8.1988 (19) JP  
 (21) Appl. No. 62-19250 (22) 29.1.1987  
 (71) CANON INC (72) SHIGERU FUKUYAMA(1)  
 (51) Int. Cl. B41J3/04, G06K15/10

**PURPOSE:** To enhance operability of the device, by providing an ink jet recording means, a mode selection means, a discharge data output means, a frequency data output means, and a drive means.

**CONSTITUTION:** Density data of 6 bits corresponding to a first pixel is sent from an image processing part 6 to input ports A5~A0 of a table part 9, and image mode data is sent to an input port A6 of the table part 9. In the table part 9, voltage value data 10 of 6 bit, which was extracted by using the data inputted to the input ports A6~A0 as the address, is outputted from output ports D5~D0, and the outputted data is converted to an analog voltage to be sent to a head driver 20. At this time, if the output signal of an encoder 17 is sent to a sequence controller 1, a discharge command pulse is outputted from the sequence controller 1 to the head driver 20. Then, a recording head 21 is driven with the analog voltage value in synchronism with the discharge command pulse, whereby an ink is discharged by a predetermined amount. In this manner, operability can be enhanced to meet various requirements, such as short-time printing and enhancement of printing quality.



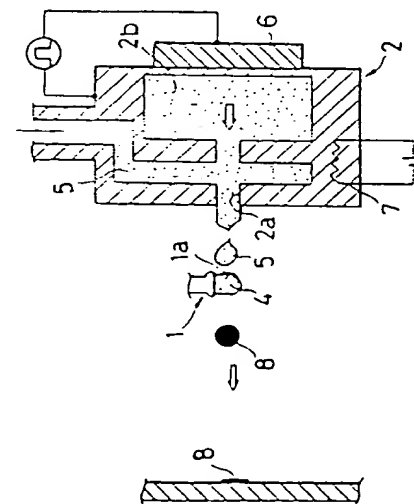
15: motor driver, 22: pulse motor driver, a: mode data, b: discharge pulse, c: data output signal, d: density data, e: image mode data

**(54) INK JET PRINTER**

(11) 63-188056 (A) (43) 3.8.1988 (19) JP  
 (21) Appl. No. 62-20132 (22) 30.1.1987  
 (71) NEC HOME ELECTRONICS LTD (72) ATSUSHI UNO  
 (51) Int. Cl. B41J3/04

**PURPOSE:** To enhance an ink density, by a method wherein, a solid pigment discharged from a pigment supply means is brought into collision with a solvent jetting out from a solvent flying means towards the solid pigment to be mixed with each other just before printing on a paper to produce an ink, and the ink is made to adhere to the paper for printing.

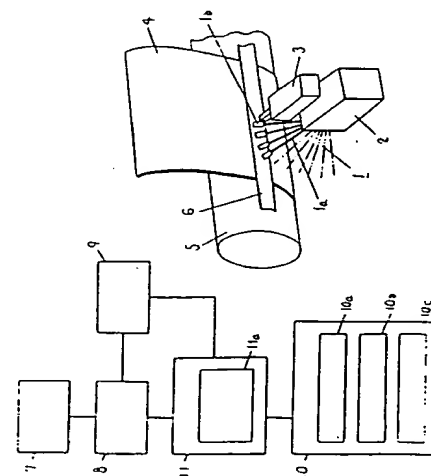
**CONSTITUTION:** A solvent flying means 2 jets out a solvent 5 from a nozzle 2a so as to aim at a solid pigment 4 discharged from a discharge port 1a and brings the solvent 5 into collision with the solid pigment 4 to mix with each other to produce an ink 8 in air. The produced ink 8 is made to fly and adhere to a paper 3 for printing in mixed states. The solid pigment 4 and the solvent 5 forming the ink 8 are brought into collision to be mixed with each other in a proper ratio, whereby the ink 8 is produced with high density and viscosity. In this manner, a sharp printing can be performed with high drying characteristics after printing and minimum bleeding.

**(54) PRINTER**

(11) 63-188057 (A) (43) 3.8.1988 (19) JP  
 (21) Appl. No. 62-20836 (22) 30.1.1987  
 (71) MATSUSHITA ELECTRIC IND CO LTD (72) TERUHIKO TANAKA(1)  
 (51) Int. Cl. B41J3/06

**PURPOSE:** To simplify an operation, by a method wherein, character information inputted from a keyboard is once converted to a character code, a control means judges whether a next character is a capital letter or a small letter by referring to a character code for a character next to an attached symbol, and if it is a capital letter, a paper is moved for conducting the printing of the attached symbol.

**CONSTITUTION:** By operating keys on a keyboard 7, a generating means 8 generates a character code and the code is stored in a storage means 9. With the input of the character code to a control means 11, a printing action corresponding to the character code is conducted if a judging means 11a judges that the inputted character code does not correspond to an attached symbol. If the character code represents an attached symbol, a next character code is inputted to the control means 11. If the character code represents a small letter, the control means 11 prints an attached symbol and the small letter. If the character code represents a capital letter, the control means 11 reversely rotates a platen 5 to print an attached symbol, thereafter rotating forwards the platen 5 to feed back the printing line to print the capital letter. In this manner, a printing of attached symbols can be simplified.



10: printing means, 10a: type selection means, 10b: paper